

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/051243

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7	G01N15/06	G01R33/09	G01N33/543
//H01F10/32, G11B5/39			

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N G01R H01F G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 825 595 A (GILL HARDAYAL SINGH) 20 October 1998 (1998-10-20) abstract column 1, line 7 – line 12 column 2, line 61 – column 3, line 12 column 3, line 37 – column 4, line 20 column 4, line 56 – column 7, line 40 column 8, line 39 – column 10, line 31 figure 2	1-8, 11, 13-19
Y	----- -----	9, 10, 12, 21

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

28 September 2004

Date of mailing of the International search report

25/10/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>FERREIRA H A ET AL: "Biodetection using magnetically labeled biomolecules and arrays of spin valve sensors (invited)" JOURNAL OF APPLIED PHYSICS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 93, no. 10, 15 May 2003 (2003-05-15), pages 7281-7286, XP012058127 ISSN: 0021-8979 abstract page 7282, column 2, paragraph C page 7283, column 1, paragraph D page 7286, column 1, line 14 - line 17 figures 3,4,9,10</p> <p>-----</p>	9,10,12, 21
A	<p>LI GUANXIONG ET AL: "Detection of single micron-sized magnetic bead and magnetic nanoparticles using spin valve sensors for biological applications" JOURNAL OF APPLIED PHYSICS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 93, no. 10, 15 May 2003 (2003-05-15), pages 7557-7559, XP012058215 ISSN: 0021-8979 abstract figures 1,2</p> <p>-----</p>	1-21
A	<p>US 5 981 297 A (BASELT DAVID R) 9 November 1999 (1999-11-09) abstract page 8, line 49 - line 64 figure 7</p> <p>-----</p>	1
A	<p>WO 03/054523 A (PRINS MENNO W J ; COEHOORN REINDER (NL); KONINKL PHILIPS ELECTRONICS N) 3 July 2003 (2003-07-03) cited in the application abstract figures 5A-C,6,7</p> <p>-----</p>	1-21
A	<p>SMITH C H; SCHNEIDER R W: "Low Magnetic Field Sensing with GMR Sensors, Part 2: GMR Sensors and their Applications" SENSORS MAGAZINE, 'Online' vol. 16, no. 10, August 1996 (1996-08), pages 1-11, XP002298354 Retrieved from the Internet: URL:www.sensorsmag.com/articles/1099/index.htm> 'retrieved on 2004-09-28' page 1, paragraph 2 - page 2, paragraph 2 page 5, paragraph 4 - page 7, paragraph 1 page 9, paragraph 5 - page 10, paragraph 2</p> <p>-----</p>	1-21

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/051243

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 5825595	A 20-10-1998	NONE		
US 5981297	A 09-11-1999	NONE		
WO 03054523	A 03-07-2003	EP WO	1456658 A2 03054523 A2	15-09-2004 03-07-2003